Claims

1. The use of a conjugate comprising a carboxyl group-containing organic compound and a protein for producing a pharmaceutical for modulating a transplantation-associated immune response.

2. The use as claimed in claim 1 for producing a pharmaceutical for preventing a transplantation-associated immune response.

3. The use as claimed in claim 1 or 2 for producing a pharmaceutical for the prophylaxis or/and treatment of GVHD (graft versus host disease).

4. The use as claimed in claim 3, characterized in that GVHD is an acute GVHD.

5. The use as claimed in claim 3, characterized in that GVHD is a chronic GVHD.

6. The use as claimed in any of the preceding claims, characterized in that the transplantation is a bone marrow transplantation.

7. The use as claimed in any of claims 1 to 5, characterized in that the transplantation is an organ transplantation, in particular a kidney, heart or liver transplantation.

8. The use as claimed in any of the preceding claims, characterized in that an allogeneic transplantation is involved.

9. The use as claimed in any of the preceding claims, characterized in that the carboxyl group-containing organic compound is selected from cytostatics or immunosuppressants.

10. The use as claimed in any of the preceding claims, characterized in that the carboxyl group-containing organic compound is methotrexate or aminopterin.

11. The use as claimed in any of the preceding claims, characterized in that the polypeptide is a native human polypeptide.

12. The use as claimed in any of the preceding claims, characterized in that the polypeptide is albumin, in particular human albumin.

13. The use as claimed in any of the preceding claims, characterized in that the conjugate is a methotrexate-albumin conjugate.

14. A method for preparing a conjugate comprising
i) a carboxyl group-containing organic compound and
ii) a protein,
characterized in that a carboxyl group-containing organic compound and a protein are reacted in the presence of 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide and of N-hydroxysuccinimide.

15. The method as claimed in claim 14, characterized in that the carboxyl group-containing organic compound is a cytostatic or an immunosuppressant.

16. The method as claimed in claim 14 or 15, characterized in that the carboxyl group-containing organic compound is methotrexate.

17. The method as claimed in any of claims 14 to 16, characterized in that the protein is albumin.

18. The method as claimed in any of claims 14 to 17, characterized in that the carboxyl group-containing organic compound is activated in an organic solvent, in particular in an anhydrous organic solvent, with

1-ethyl-3-(3-dimethylaminopropyl)carbodiimide and N-hydroxysuccinimide, and then the activated carboxyl group-containing organic compound is reacted with the protein.

19. A method for preparing a conjugate comprising
i) a carboxyl group-containing organic compound and
ii) a protein,
characterized in that a carboxyl group-containing organic compound and a protein are reacted in the presence of 1-ethyl-3-(3-dimethylaminopropyl)carbonyldiimide.

20. The method as claimed in claim 19, characterized in that the carboxyl group-containing organic compound is a cytostatic or an immunosuppressant.

21. The method as claimed in claim 19 or 20, characterized in that the carboxyl group-containing organic compound is methotrexate, aminopterin and/or N-phthaloyl-L-glutamic acid.

22. The method as claimed in claim 21, characterized in that the carboxyl group-containing organic compound is methotrexate.

23. The method as claimed in any of claims 19 to 22, characterized in that the protein is albumin.

24. The method as claimed in any of claims 19 to 23, characterized in that the carboxyl group-containing organic compound is reacted in an organic solvent, in particular in an anhydrous organic solvent, with 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide, is activated by heating and then the activated carboxyl group-containing organic compound is reacted with the protein.